

FIG. 1A

PRIOR ART

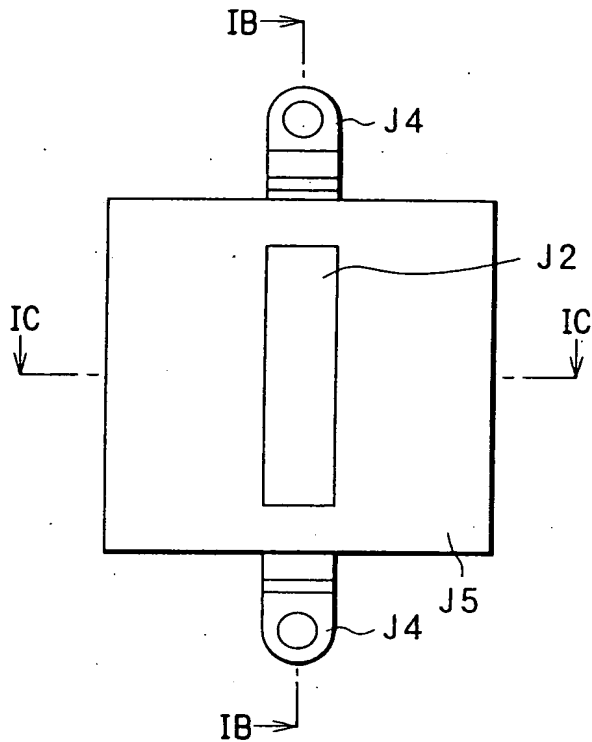


FIG. 1B

PRIOR ART

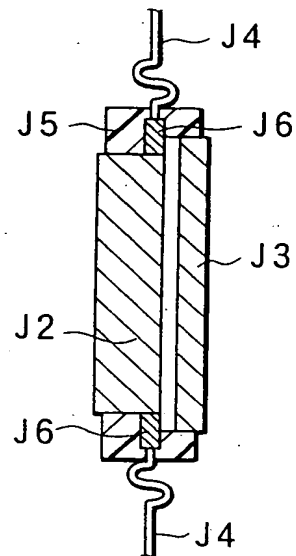
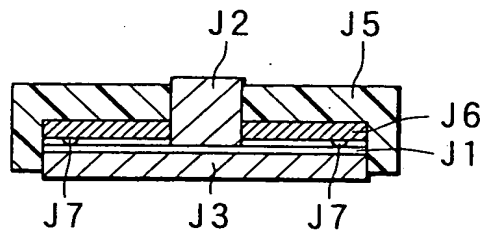


FIG. 1C

PRIOR ART



A detailed cross-sectional diagram of a semiconductor device. The main body consists of a substrate 3 at the bottom, followed by a dotted layer 4, a white layer 1a, another dotted layer 4, a hatched layer 2a, and a top hatched layer 2. On the right side, there is a contact pad 7 made of material 2a, which is connected to a wire bond 9. A dashed line indicates a boundary or interface between the contact pad and the underlying layers. A vertical double-headed arrow labeled 'F' indicates a force being applied to the top surface of layer 2a. Labels 6a and 6b point to specific regions within the upper part of the device.

FIG. 3

NAME OF METAL	CHEMICAL COMPOSITION (%)													
	Fe	Zn	P	Ni	Si	Sn	NiB	Mn	Mg	Cr	Ti	B	Cu	Al
METAL a	2.3	0.1	0.03										REMAIN.	
METAL b	2.4	0.12	0.03										REMAIN.	
METAL c				3.0	0.7								REMAIN.	
METAL d	1.5	0.5				0.5							REMAIN.	
METAL e	1.0	0.05	0.1			1.0							REMAIN.	
METAL f	0.75		0.03			1.25							REMAIN.	
METAL g	0.05 0.15		0.025 0.040										REMAIN.	
METAL h	0.05 0.4		0.05 0.1			0.05 0.2	0.05 0.45						REMAIN.	
METAL i			0.15 OR LOWER	0.1 0.4		1.7 2.3							REMAIN.	
METAL j		0.2 0.35		3.0 3.4	0.6 0.75	1.0 1.5							REMAIN.	
METAL k	0.12 1.0	0.03 0.1			0.1 1.0			0.02 0.05	0.02 0.05		0.02 0.05		0.03 0.2	REMAIN.
METAL l	0.5	0.1			0.3 0.7			0.05	0.35 0.5	0.03		0.06	0.1	REMAIN.

FIG. 4A

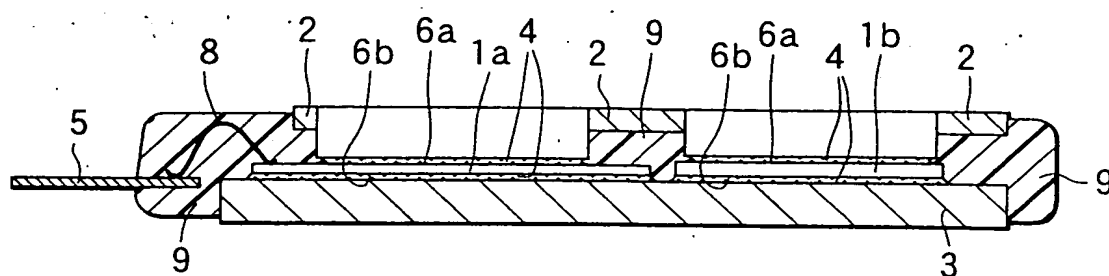


FIG. 4B

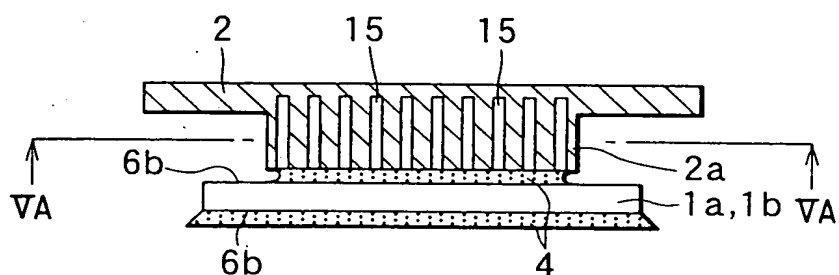


FIG. 4C

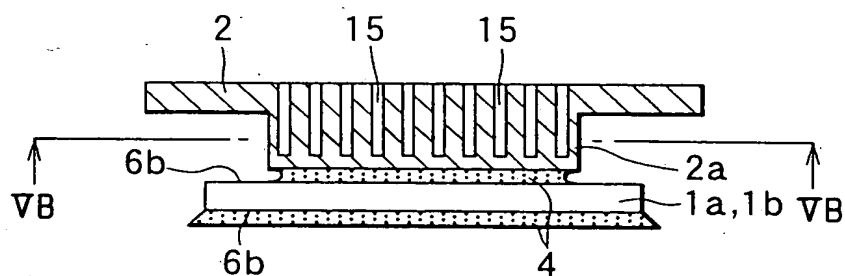


FIG. 4D

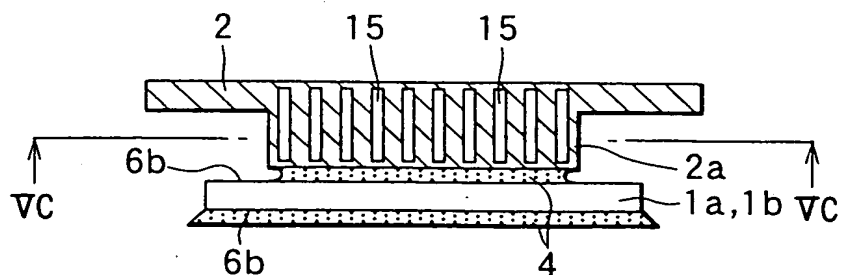


FIG. 5A

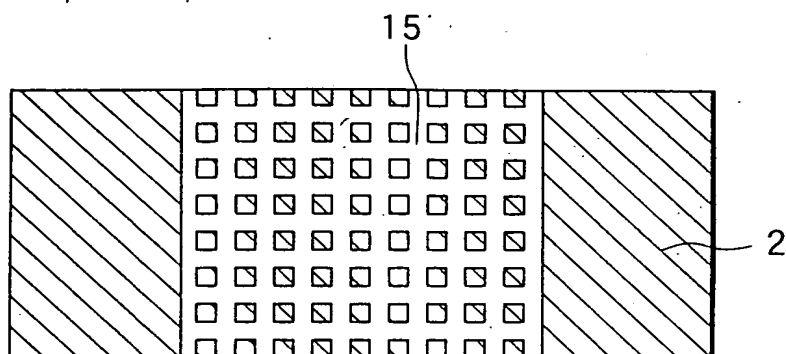


FIG. 5B

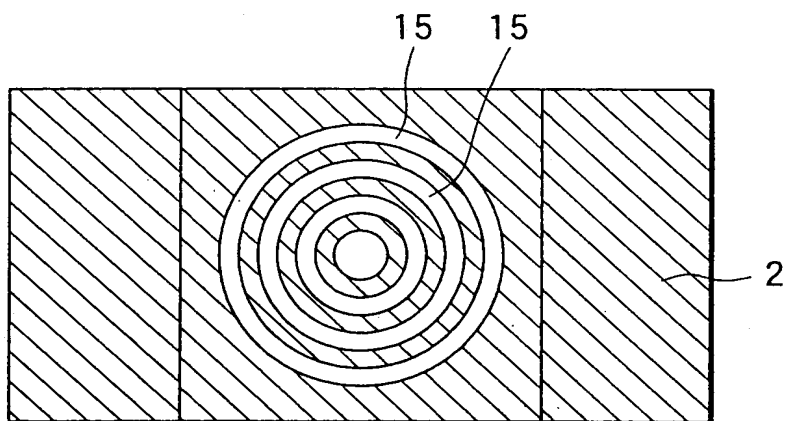


FIG. 5C

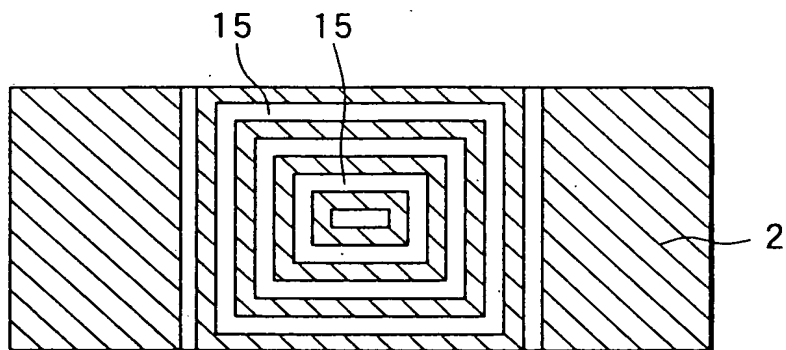


FIG. 6

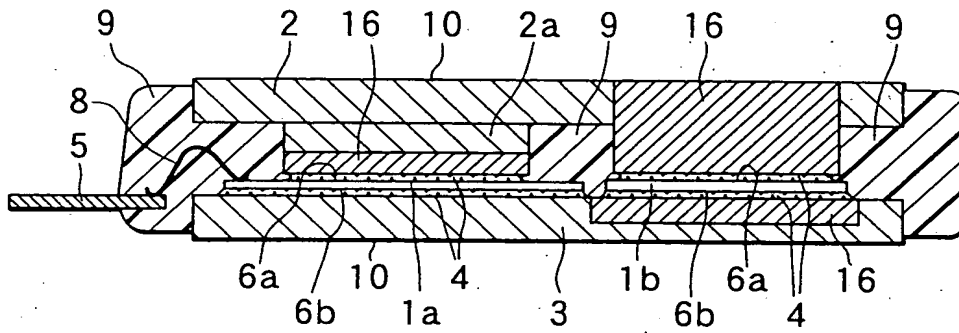


FIG. 7

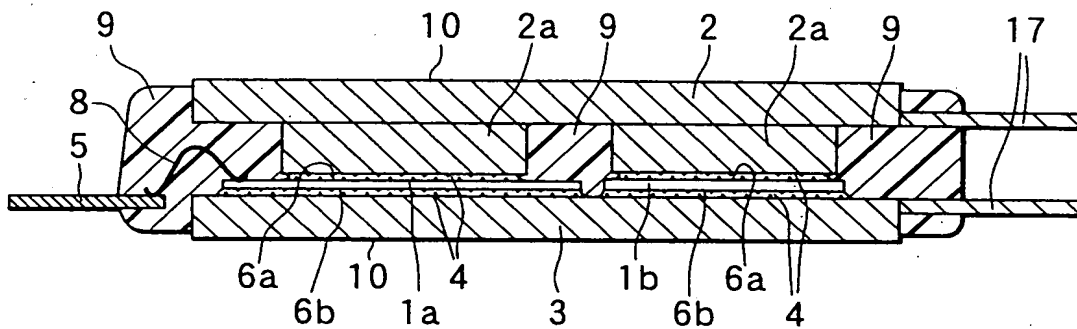


FIG. 8A

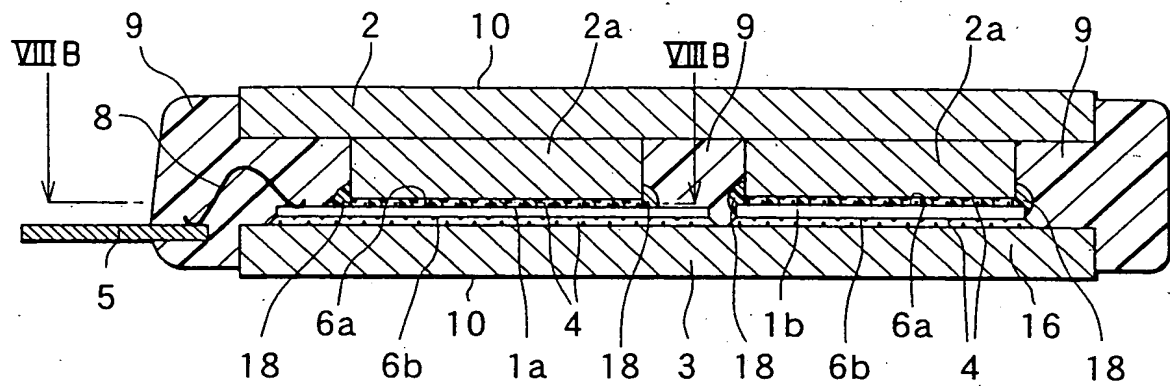


FIG. 8B

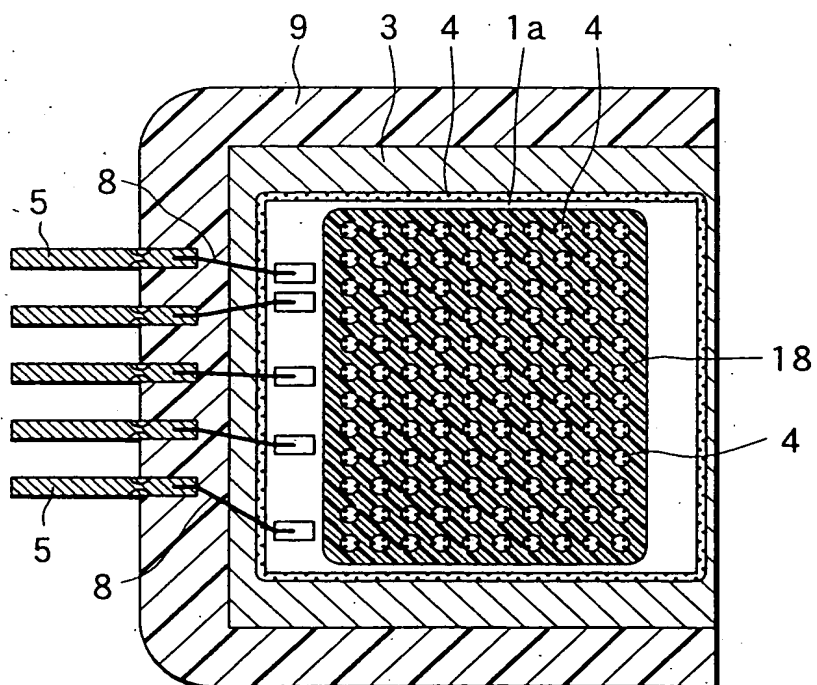


FIG. 9A

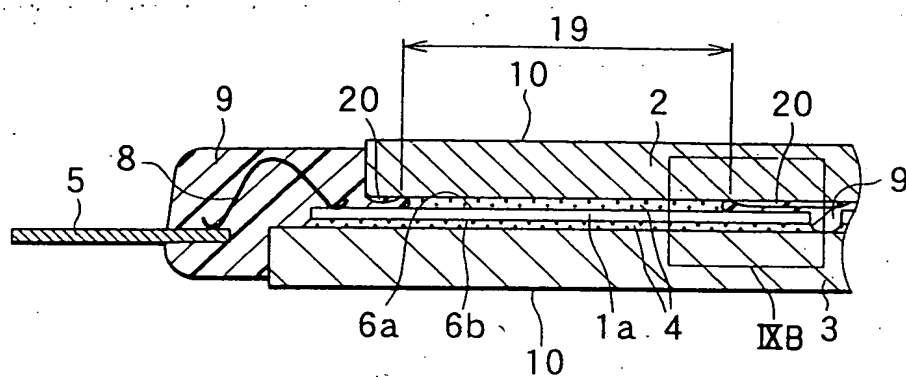


FIG. 9B

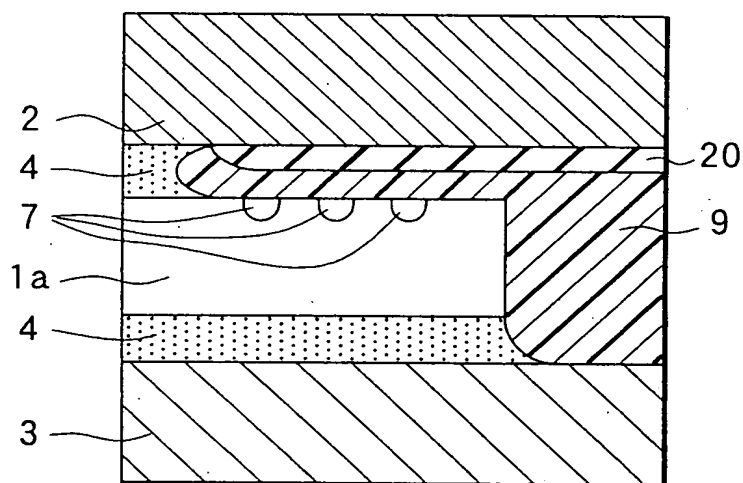


FIG. 9C

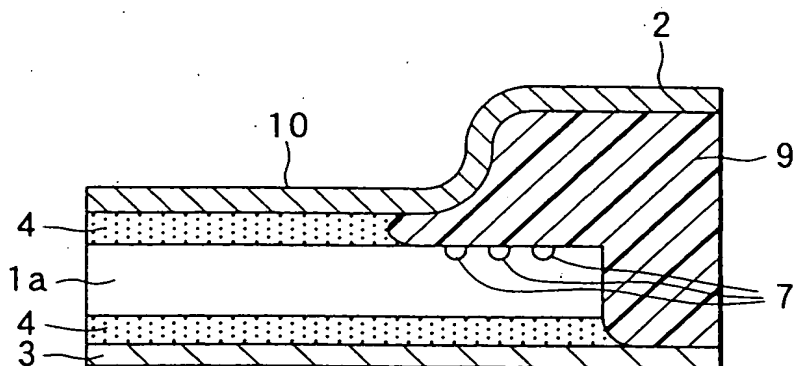


FIG. 10

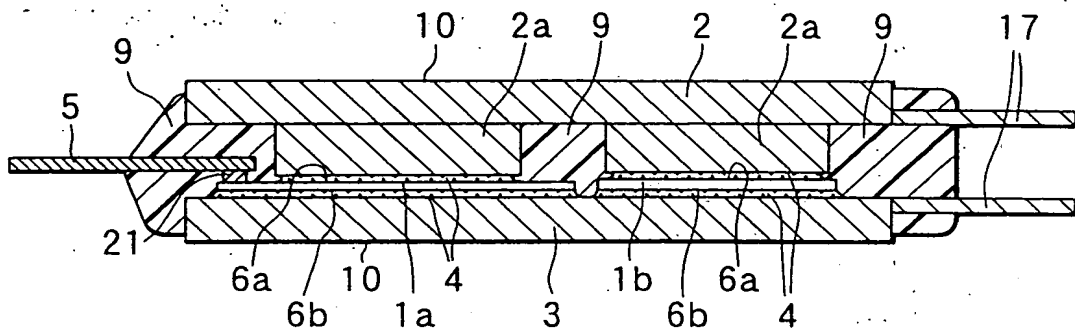


FIG. 11

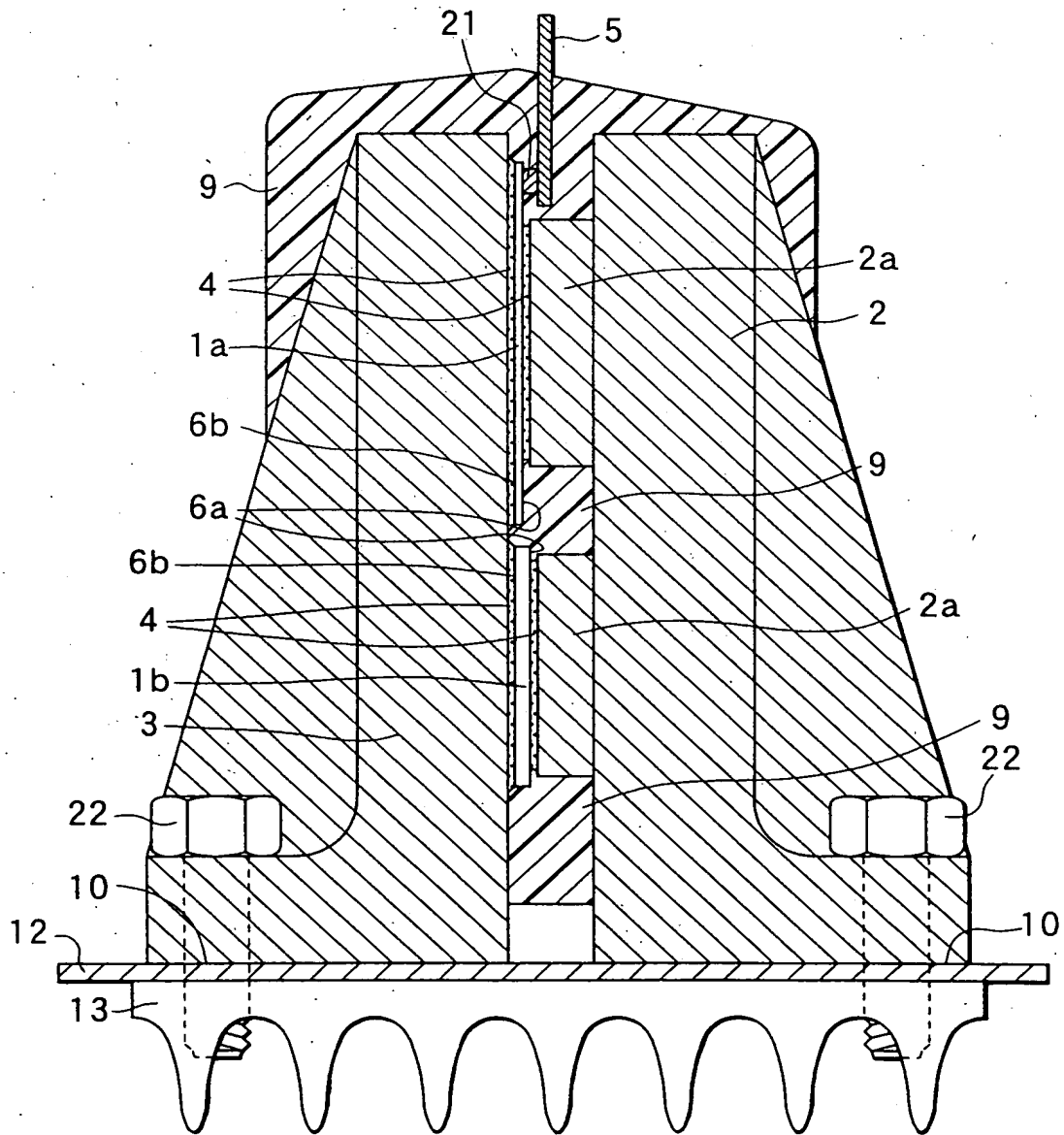


FIG. 12

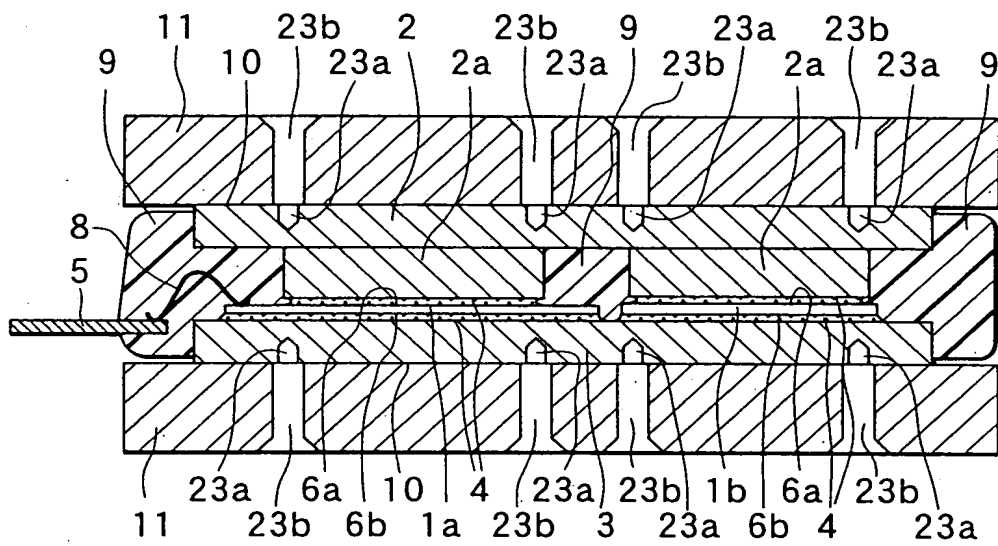


FIG. 13

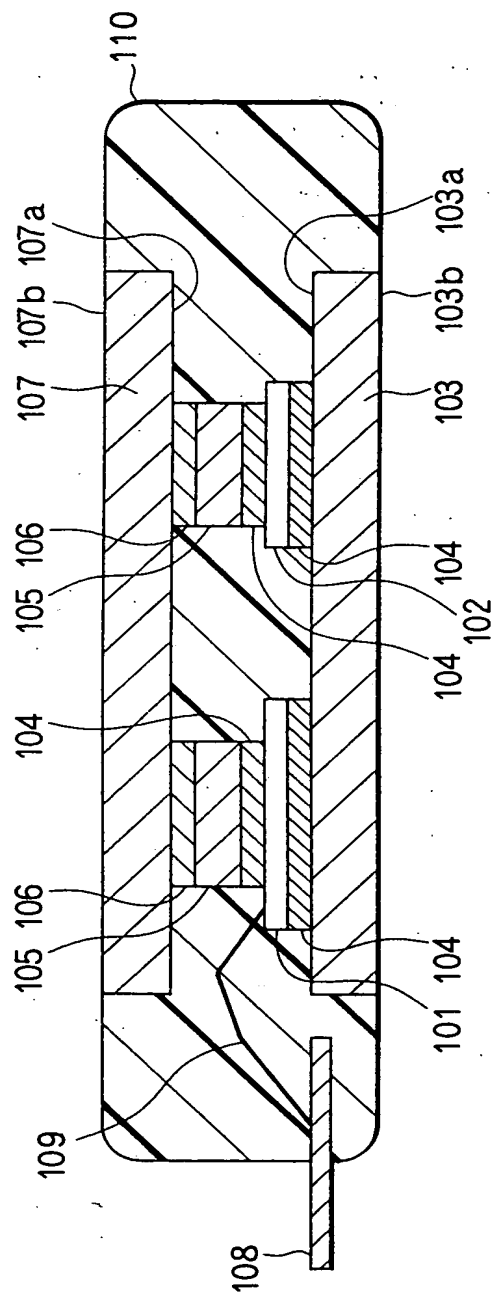


FIG. 14A

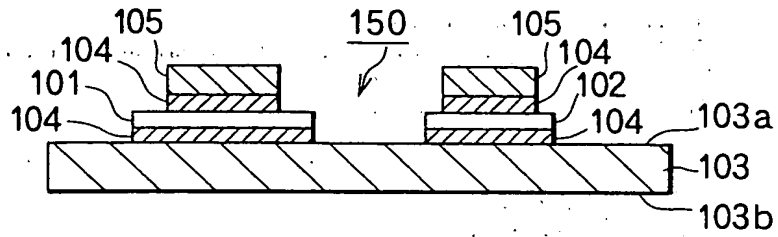


FIG. 14B

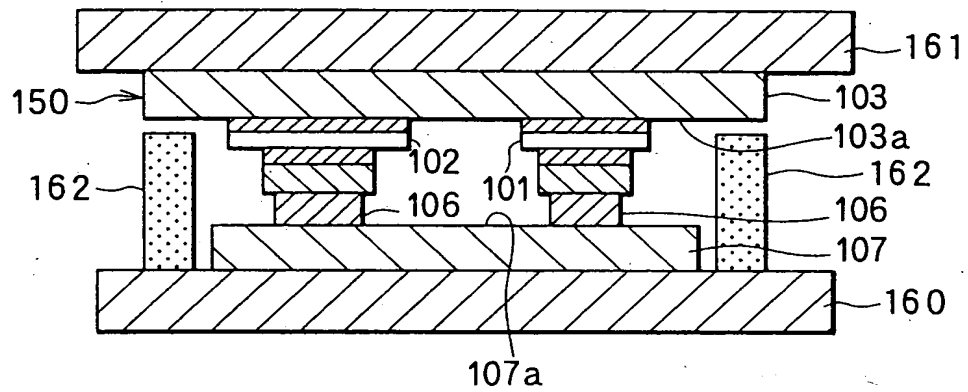


FIG. 14C

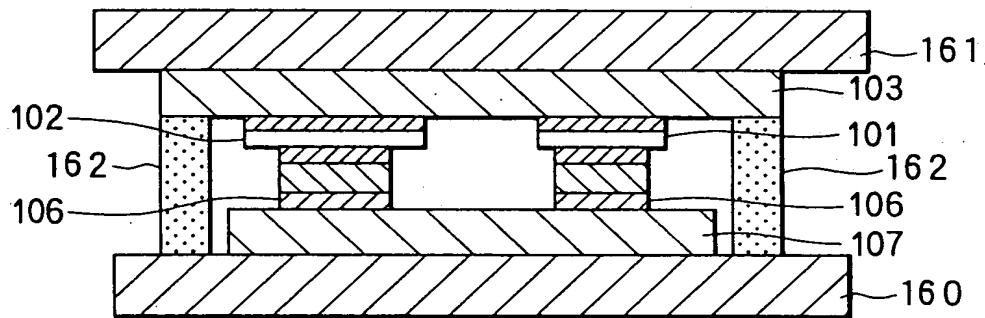


FIG. 15

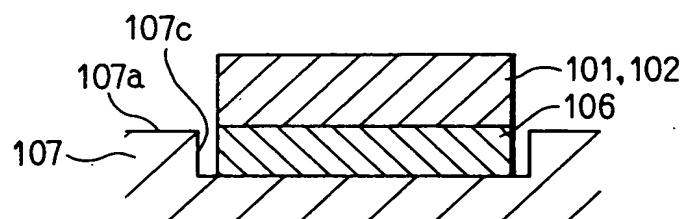


FIG. 17

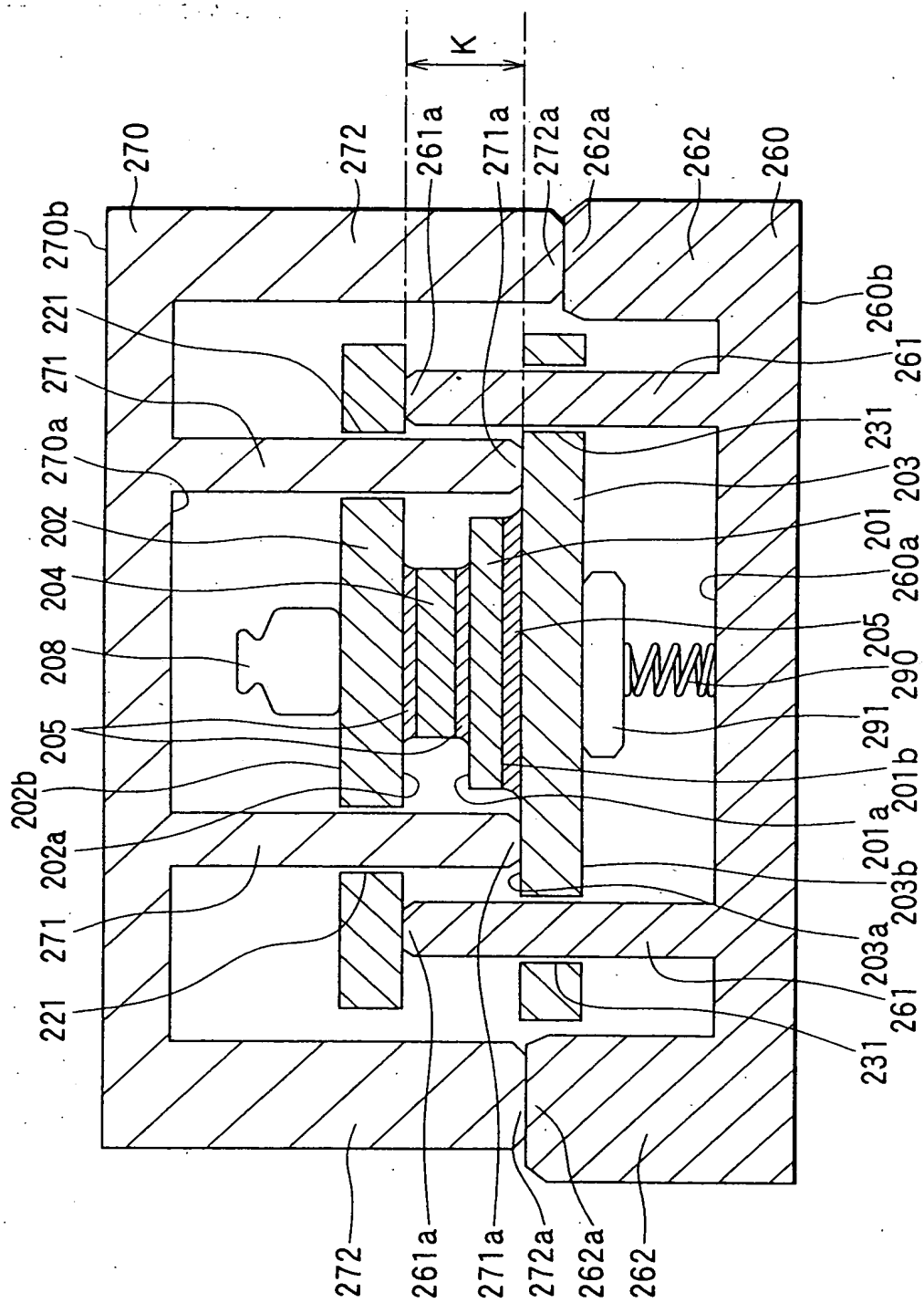


FIG. 8

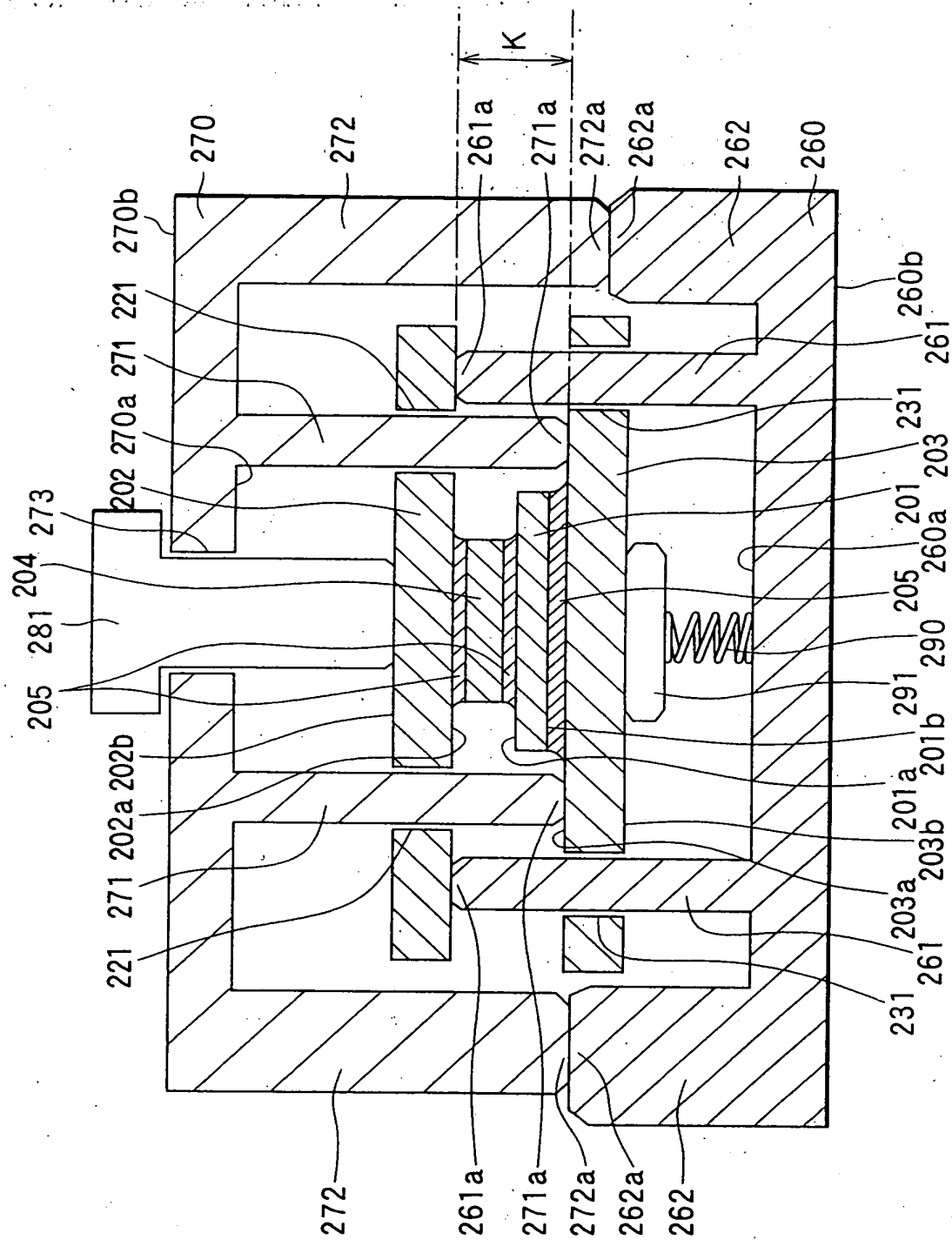


FIG. 19

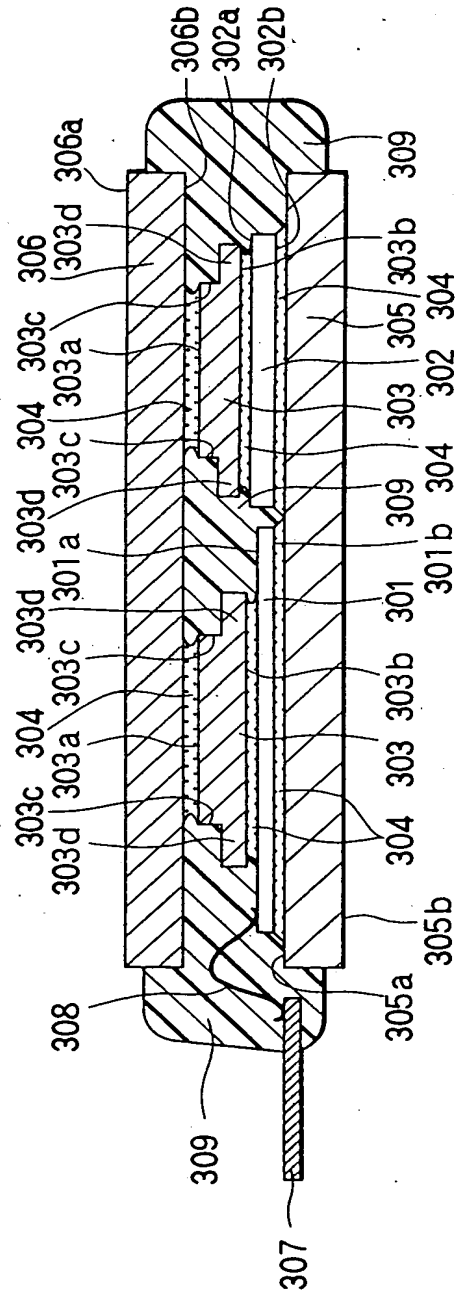


FIG. 20A

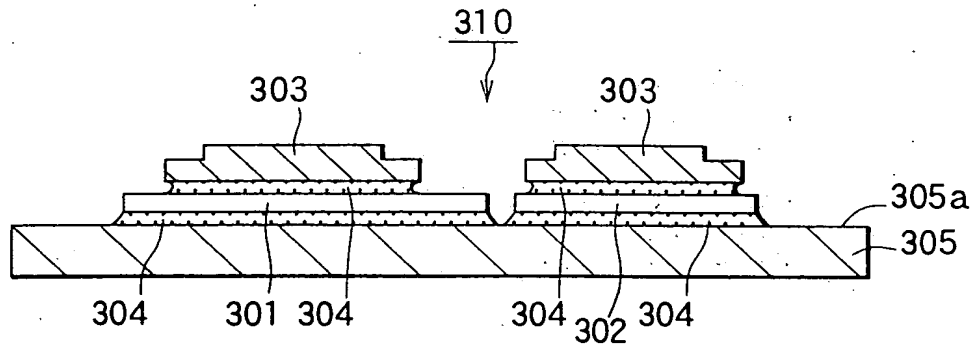


FIG. 20B

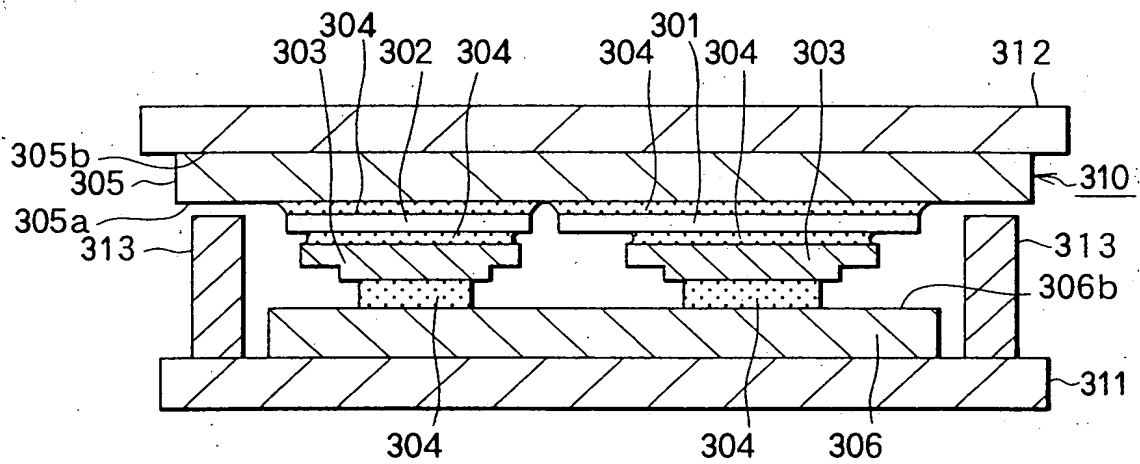


FIG. 20C

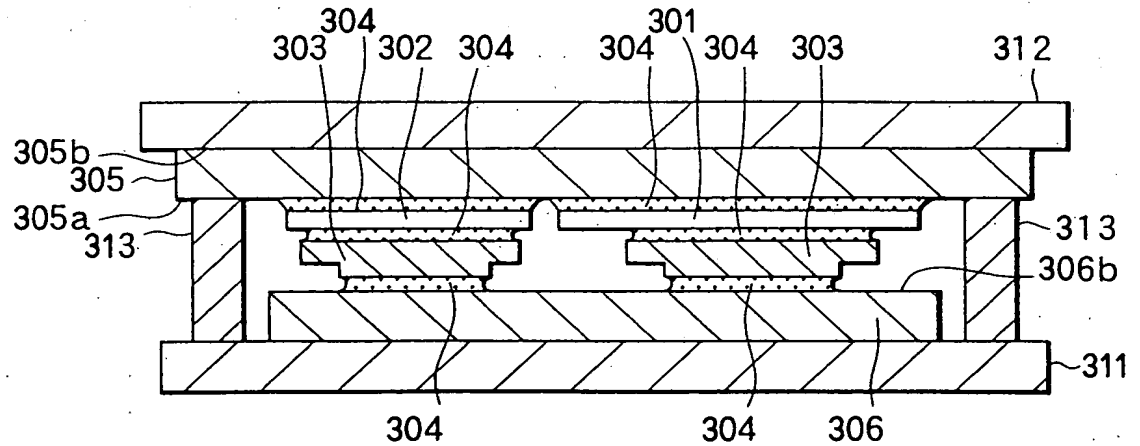


FIG. 21

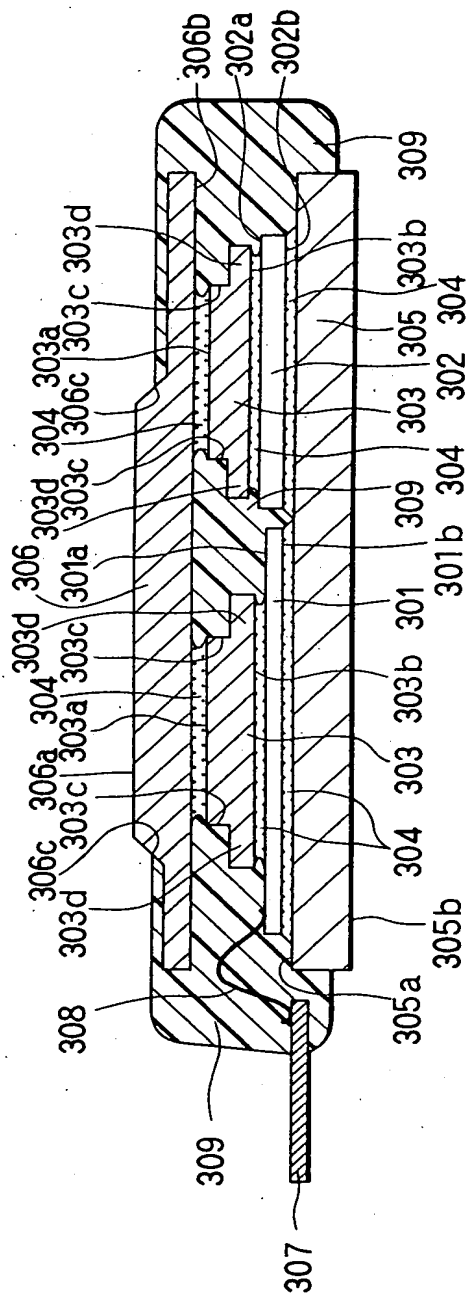


FIG. 22

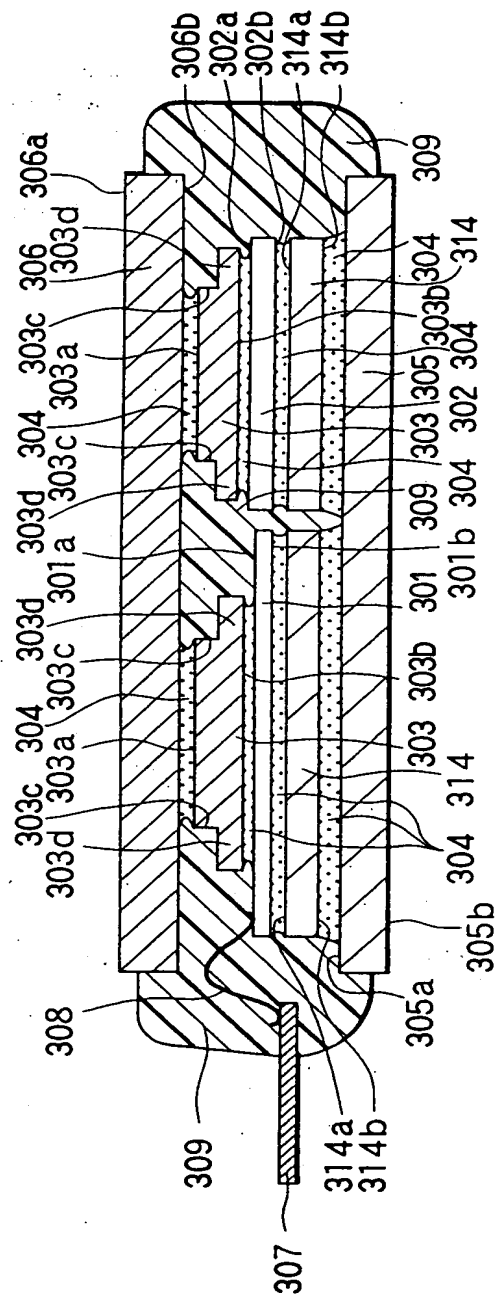


FIG. 23

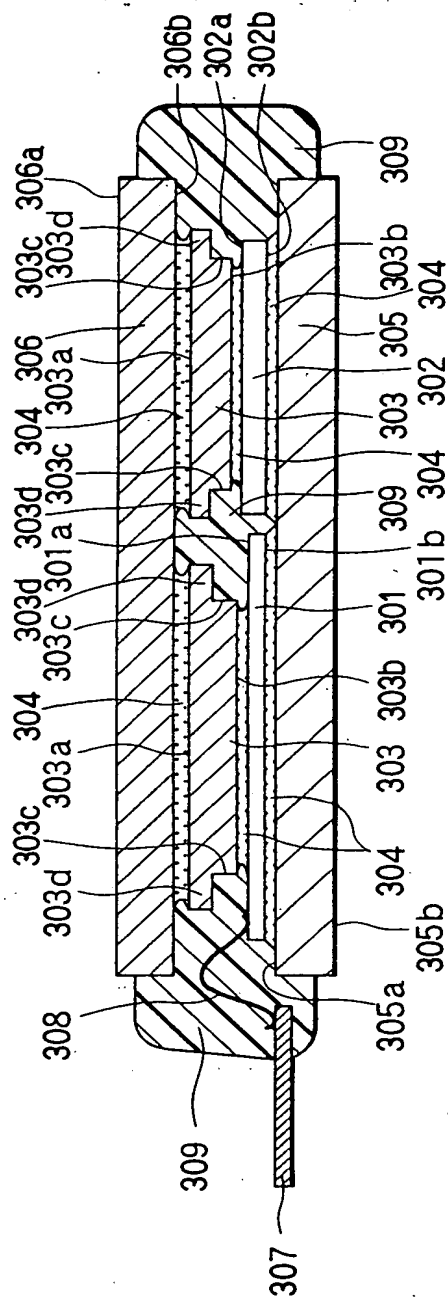


FIG. 24

XXVI

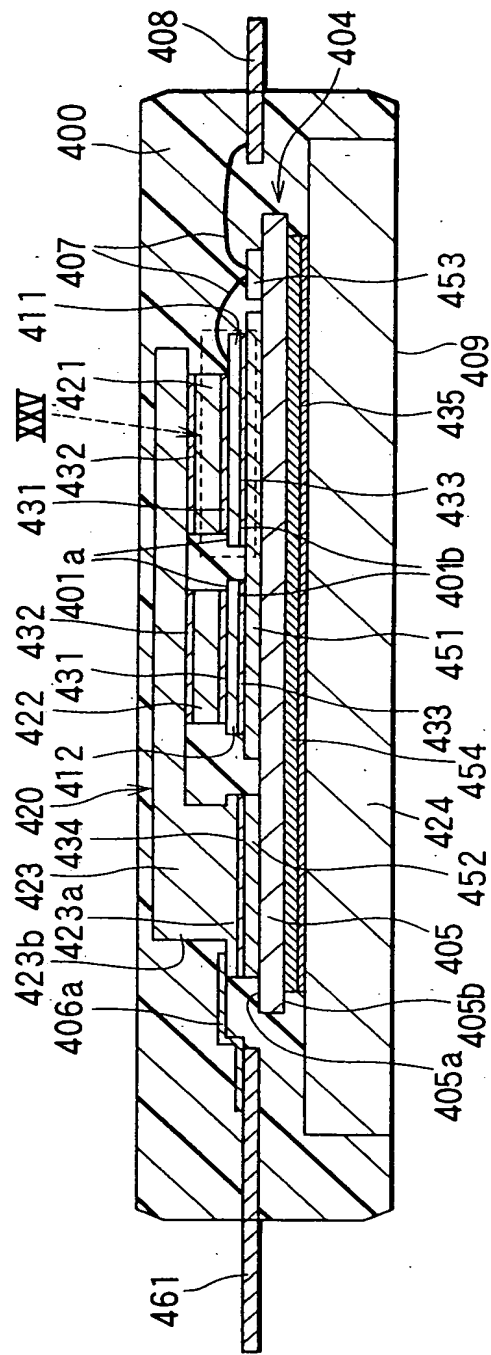


FIG. 25

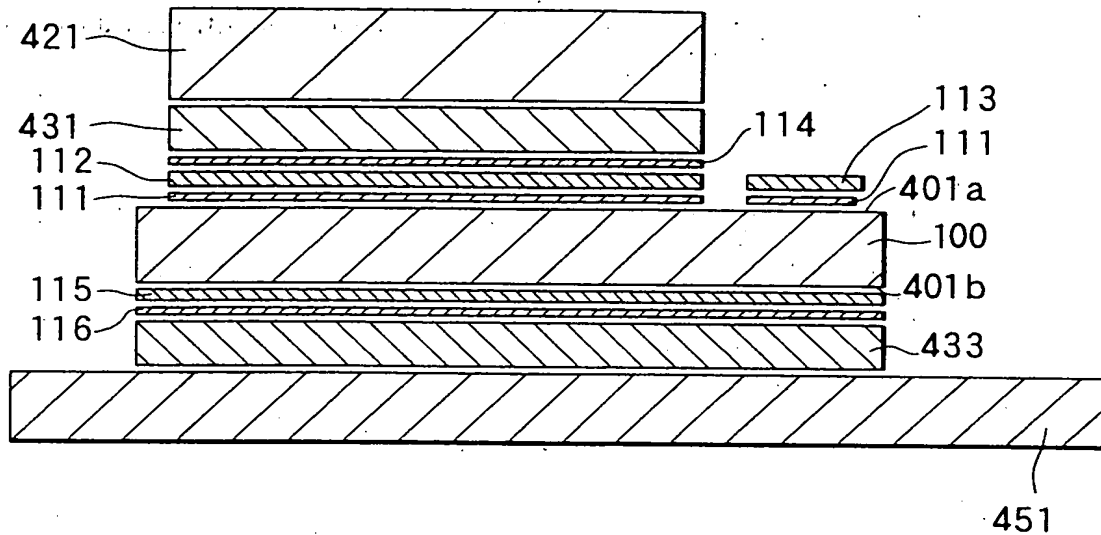


FIG. 26

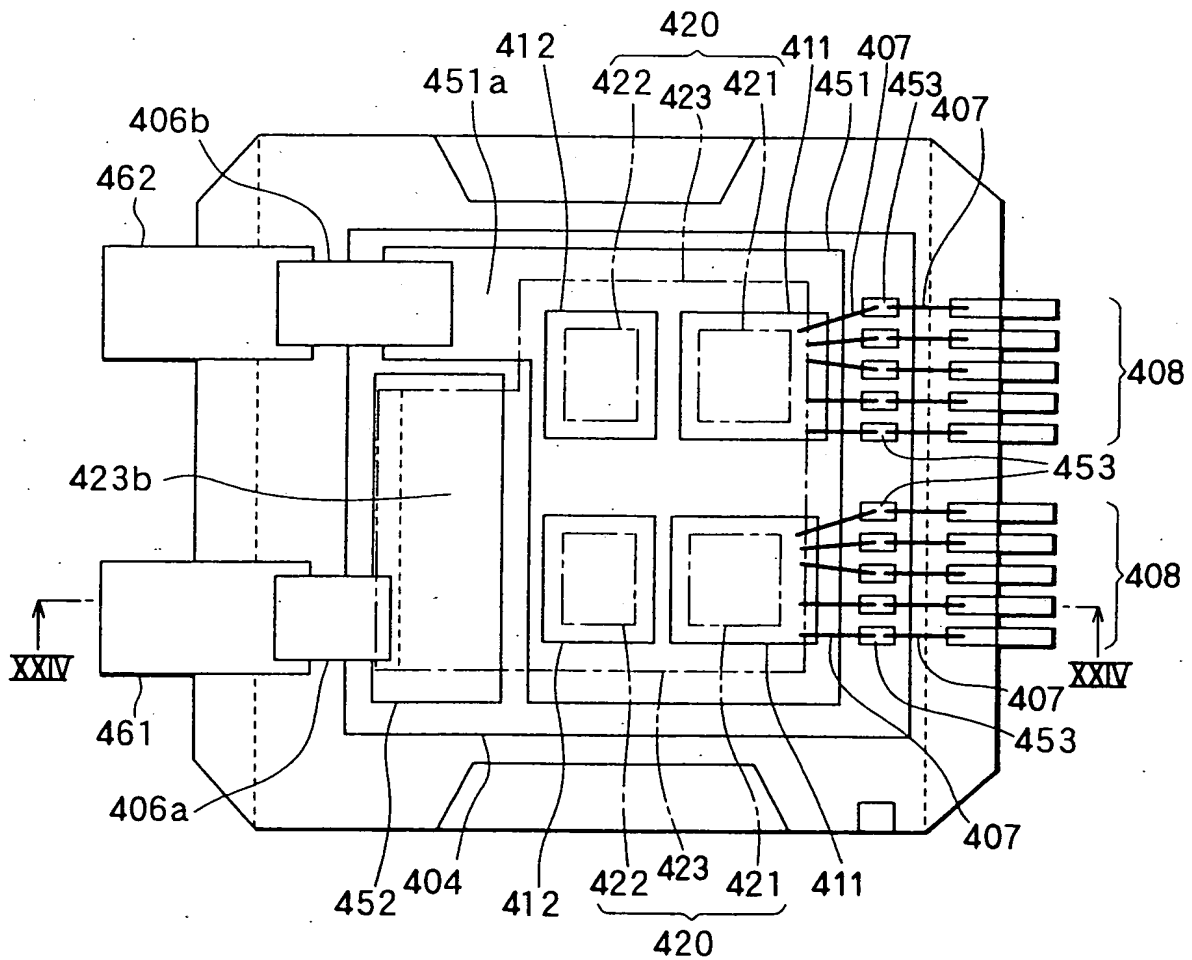


FIG. 27

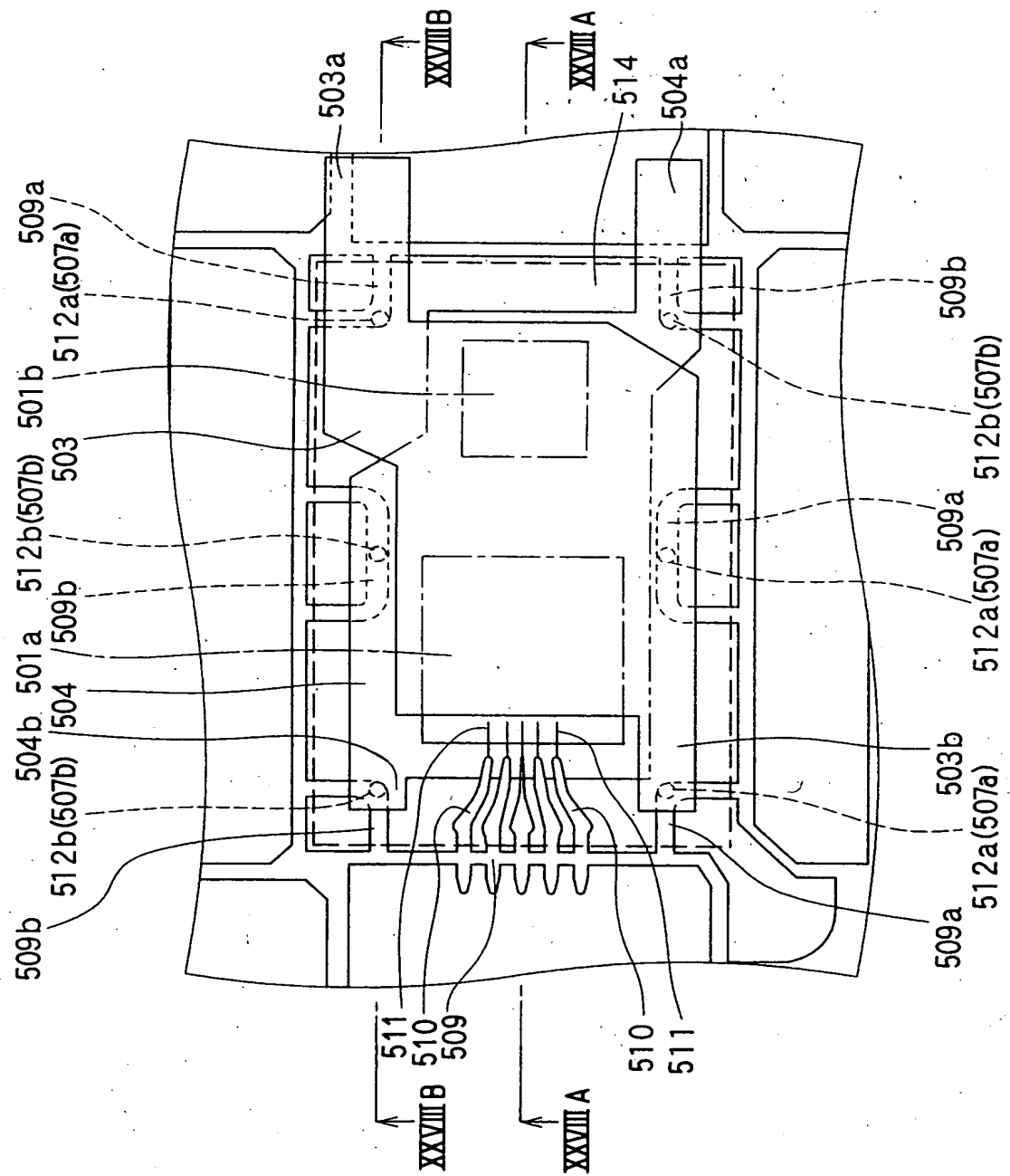


FIG. 28A

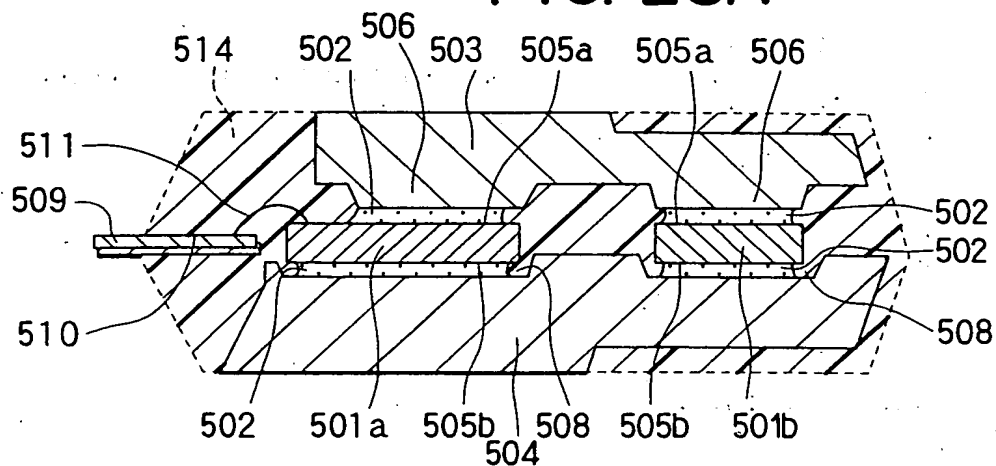


FIG. 28B

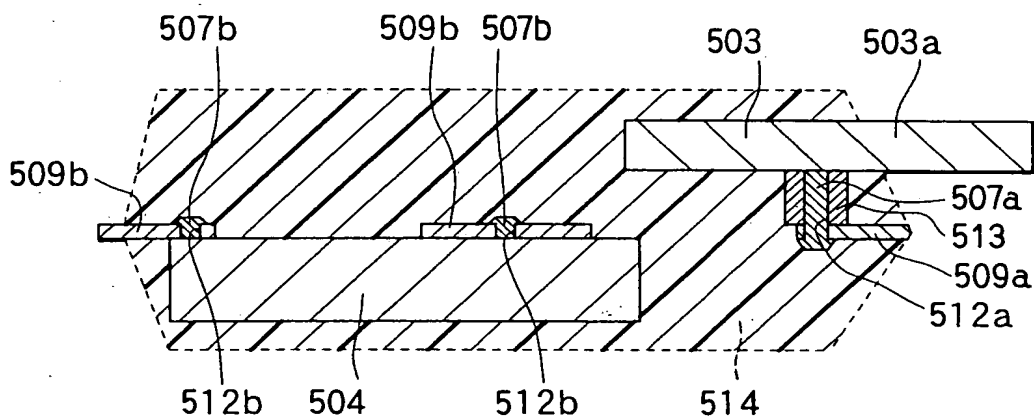


FIG. 29

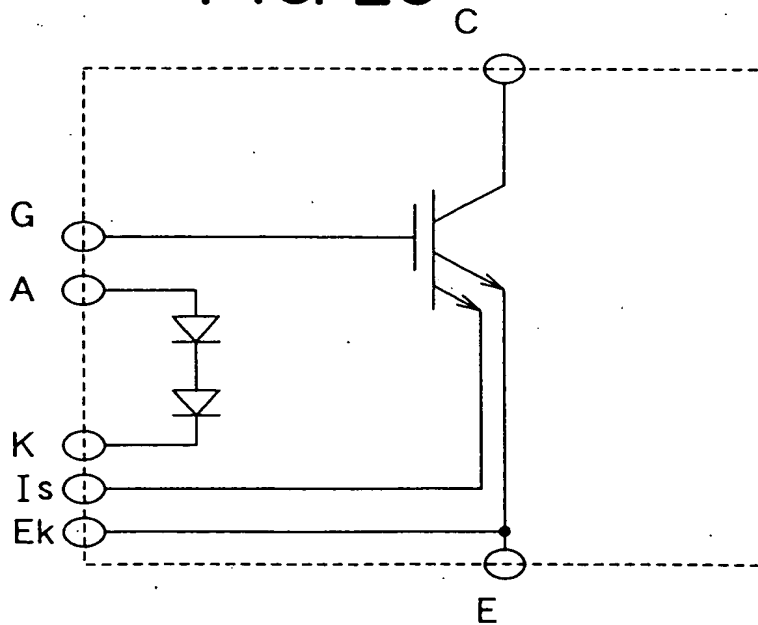


FIG. 30A

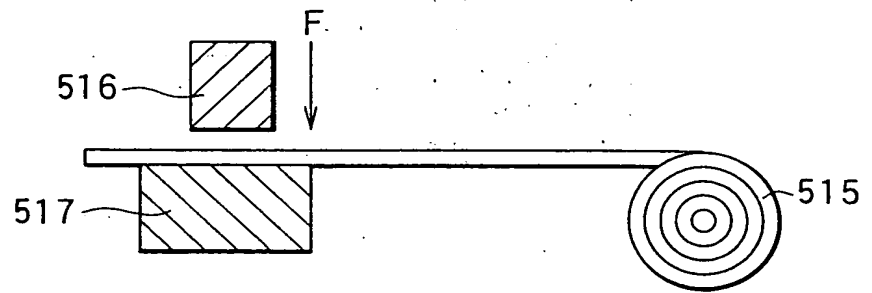


FIG. 30B

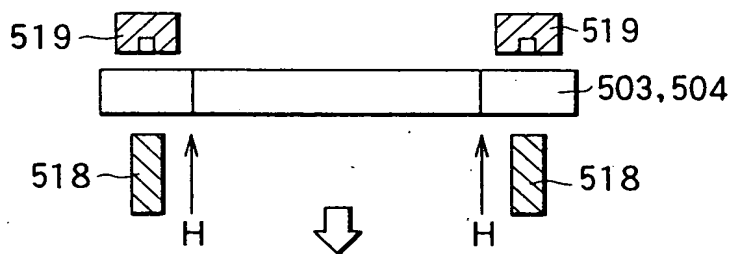


FIG. 30C

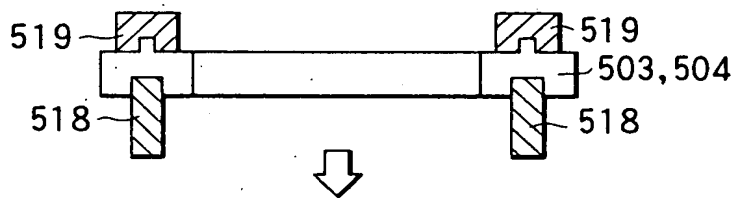


FIG. 30D



FIG. 31

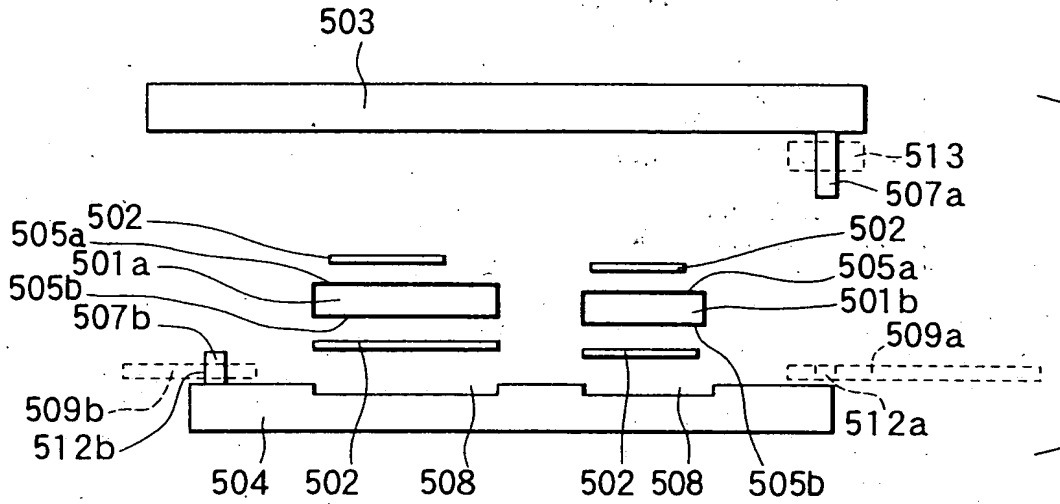


FIG. 32A

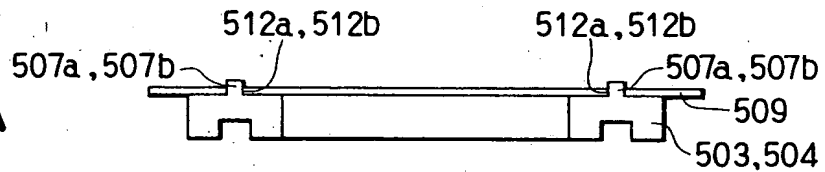


FIG. 32B

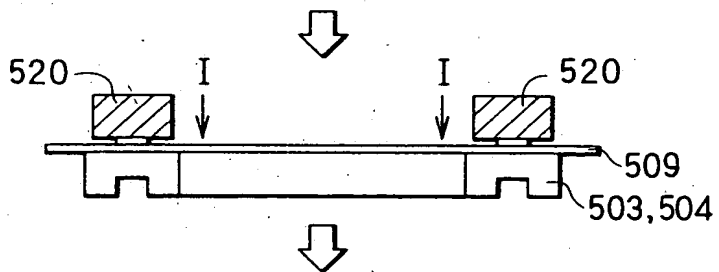


FIG. 32C

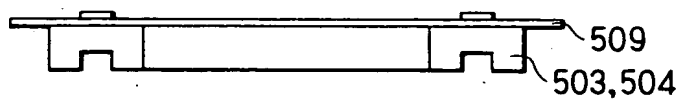


FIG. 33

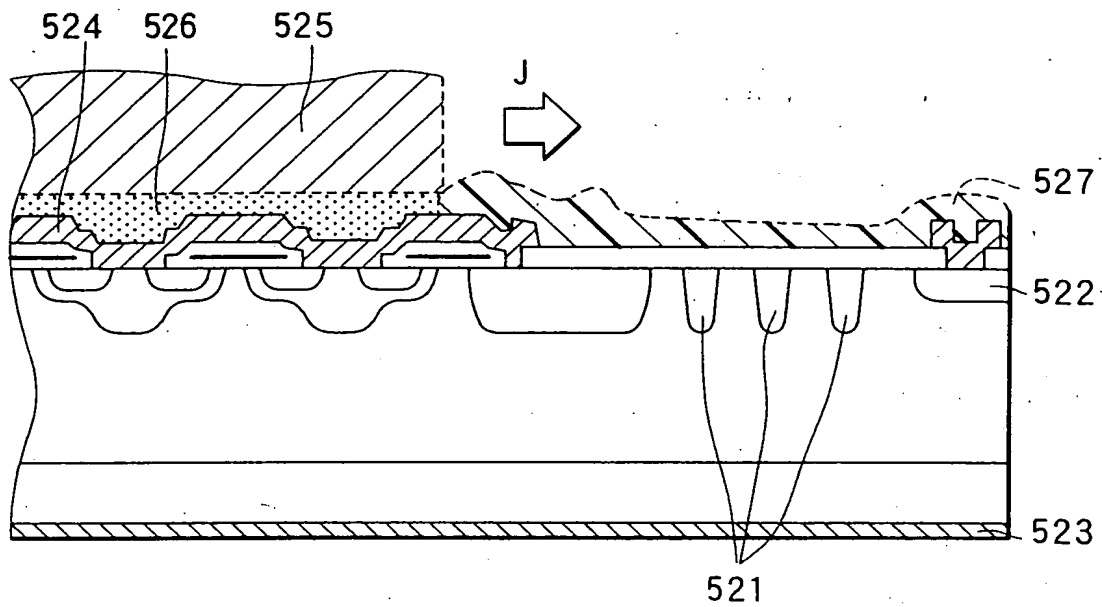


FIG. 34

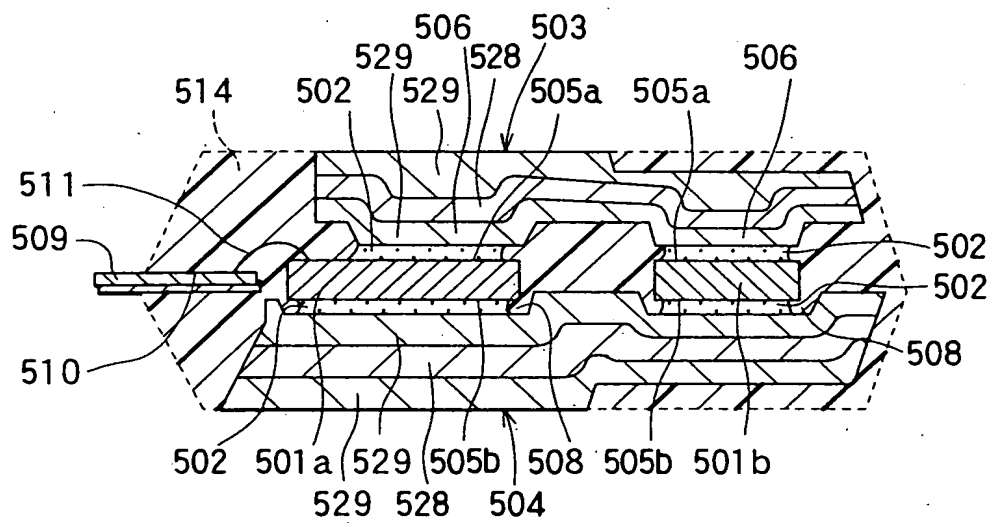


FIG. 35A

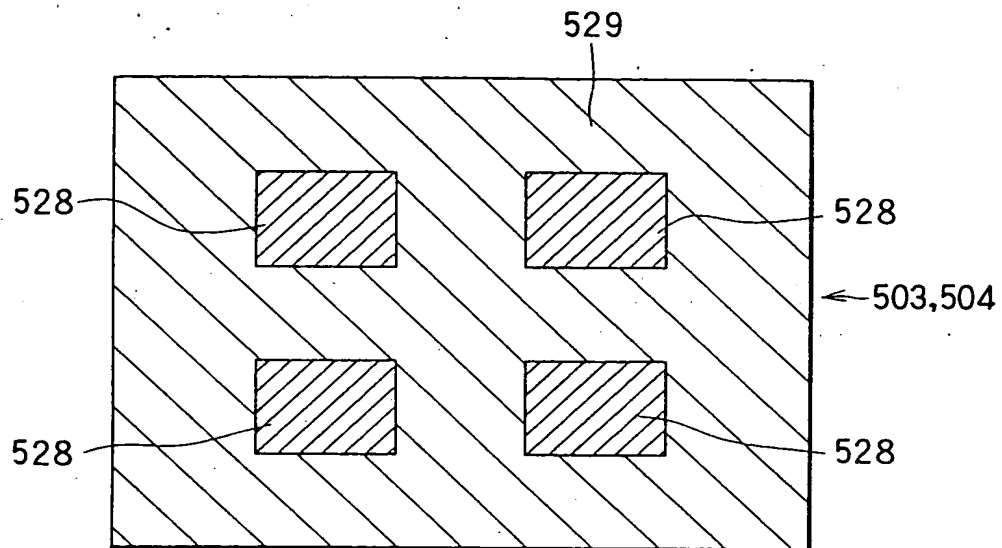


FIG. 35B

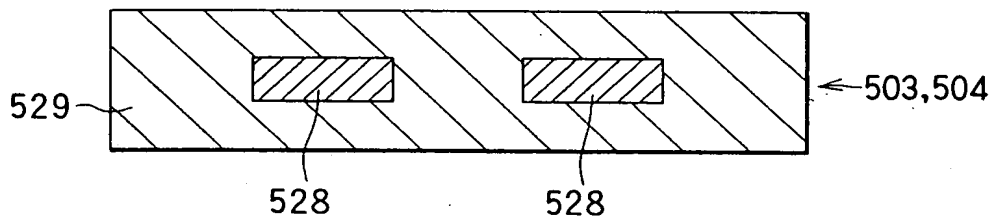


FIG. 36

